Exercise Referral for the Health Services Briefing Document

Healthy Eating & Active Living Programme

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Introduction
This briefing document was collated by the HSE National Exercise Referral Framework (NERF) pre-development group (Appendix I) to review the evidence and co-ordinate preparatory work to inform strategic approach to implementing Action 25 of the National Physical Activity Plan (NPAP).

The document outlines; the background to Exercise Referral Schemes (ERS) within the Health Service Executive (HSE); a detailed examination of the evidence on the clinical and cost effectiveness of ERS; the needs of service users and health professionals if such a scheme was to be introduced; the "fit" of a National Exercise Referral Scheme into current HSE priorities and structures; the current community programmes being delivered around the country and resources required to implement an ERS for the HSE.

Recommendations are given at the end of this document for further direction in this area going forward.

Background
Get Ireland Active: National Physical Activity Plan for Ireland, launched in 2016 specifies the following action for the HSE to lead on: Action 25 Develop and implement a pilot programme for the National Exercise Referral Framework (NERF).

Exercise referral schemes (ERS) aim to identify inactive adults in the primary-care setting. The GP or health-care professional refers the patient to a third-party service, with this service taking responsibility for prescribing and monitoring an exercise programme that is tailored to the individual needs of the patient as much as possible.

A 2013 Review of the HSE funded GP Exercise Referral Programme (GPERP) highlighted the need for a new National Exercise Referral Framework (NERF). The HSE Health and Wellbeing Division commissioned the development of this framework which was led by Dublin City University and supported by a HSE Cross-Divisional Group. The document was published in 2016.

The objectives of NERF are:

i) to outline referral pathways to quality, safe and effective supervised physical activity opportunities for individuals living with an established non-communicable disease (NCD) or mental illness;

ii) to develop the knowledge, attitude and skills of health professionals and physical activity service providers in relation to physical activity and its role for the primary and secondary prevention of NCDs, and

iii) to describe an appropriate evaluation framework for the NERF.

However from examining this NERF document it appears that it will not provide full guidance in order to implement a cost effective ERS for the HSE. This will be expanded on further throughout this document.
The HSE, under Healthy Ireland in the Health Services, is committed to implementing the *Making Every Contact Count* Health Behaviour Change Framework and *Self-Management Support* framework for patients living with chronic diseases including COPD, Asthma, Diabetes and Cardiovascular Disease. Both of these frameworks will help to meet the objectives set out by NERF above.

The first stage in the HSE’s process of implementing Action 25 involved exploratory and preparation activities. The activities focussed on were reviewing the evidence, assessing buy-in through consultation with selected key stakeholders, assessing the fit and feasibility of the innovation, and the internal capacity or readiness for implementing it.

Activities carried out since October 2016;

- A review of the evidence to support exercise referral scheme (ERS);
- A mapping exercise of structured exercise programmes within the HSE nationally;
- Facilitated Focus Groups with Service Users;
- Facilitated Focus Groups with Practice Nurses;
- Engagement with the National Co-ordinator of the Welsh National Exercise Referral System (NERS)
- Engagement with the Health and Social Wellbeing Improvement Manager of the Northern Ireland Physical Activity Referral Scheme (PARS)

Work carried out under The Make Every Contact Count work stream:

- The *Making Every Contact Count Framework* was launched on May 10th 2017 at the Integrated Care Conference in UCD.

- A Making Every Contact Count training programme to provide Brief Intervention training and skills development in relation to physical activity, healthy eating, tobacco and alcohol is in development and will be rolled out from early 2018. It is a blended learning training programme with a number of eLearning modules and face to face master class.

- The development of a standard Undergraduate curriculum for health behaviour change and chronic disease prevention and management has been underway through collaboration with all Higher Education Institutions in Ireland for the past 12 months. This curriculum will start to be implemented in all undergraduate programmes for all healthcare professionals and will integrate the Brief Intervention training and skills development as outlined above from September 2017.


http://www.hse.ie/eng/about/Who/healthwellbeing/Making-Every-Contact-Count/Framework/
Evidence: The clinical effectiveness and cost effectiveness of exercise referral schemes: a literature review

Introduction

This paper presents a review of the literature on the clinical effectiveness and cost effectiveness of exercise referral schemes (ERS) as a prelude to consideration of options for the delivery of a national exercise referral scheme (NERS) for the whole of Ireland. The paper opens with a discussion of what ERS are, before proceeding to describe the methods employed in reviewing the literature. This is followed by an examination of the results and the paper closes with evidence-based recommendations.

Defining Exercise Referral Schemes

Pavey et al. define exercise referral as “...schemes that involve referral from a primary healthcare professional due to an underlying condition and access to a structured programme of exercise.”(1)

NICE state that an exercise referral scheme (ERS) should include all of the following(2):

- An initial assessment by a primary care physician or an allied healthcare professional to assess whether they meet the physical activity guidelines;
- A referral made by the primary care physician or allied healthcare professional to a specialist in physical activity or to a physical activity service;
- A personal assessment undertaken by a physical activity specialist or service to determine what programme of physical activity would be suitable to meet a candidate’s specific needs;
- The opportunity to participate in a physical activity (PA) programme.

It is important to note from the outset that varying definitions for ERS are used within the literature and this needs to be taken into account when considering the validity of the conclusions of the systematic reviews and meta-analyses(3).

Review of the Literature

The aim of this paper, as stated from the outset, is to examine the literature pertaining to the clinical effectiveness and cost effectiveness of exercise referral schemes in order to inform the introduction of such a scheme in Ireland.

Methodology

A review of the published and grey literature was undertaken. The search strategy was constructed using free text searches and also MeSH terms and was designed to particularly focus on both the clinical- and cost-effectiveness of ERS.

A comprehensive search of the international literature was performed using Medline, Cochrane, CINAHL Complete and Google Scholar. Search terms included:

Search #1: physical activity prescription* OR physical activity referral* OR exercise prescription* OR exercise referral*

Search #2: (MM “Treatment Outcome+”) OR (MM “Conservative Treatment”) OR (MM “Patient Outcome Assessment+”)

Search #3: health technology assessment OR economic evaluation OR economic analysis
The above search yielded 98 papers of which the title and abstract of each was reviewed for suitability for inclusion in this review. Thirty-three papers were excluded as they dealt with the impact of physical activity on chronic disease which was outside of the remit of this review, 20 papers discussed exercise prescription and did not touch on the subject of exercise referral and were therefore excluded, two articles looked at the role of education in physical activity, two papers examined self-directed exercise and the associated benefits and these were excluded alongside individual papers which dealt with acupuncture for lower back pain, manipulation of the spine for back pain and the use of mobile technologies to increase physical activity levels. Duplicate studies were also excluded. A total of 35 papers were deemed suitable for inclusion in this review with further suitable articles identified through the use of ancestor referencing. A search of the grey literature was undertaken using key words in Google and a total of 41 articles were included in this review.

Results

It is without doubt that regular physical activity is effective in preventing a multitude of chronic diseases, a contributing factor to the prolongation of life, and a cornerstone in reducing healthcare expenditure costs (4–6). Indeed, the evidence base suggests that physical activity is so important to health and wellbeing that it should be addressed at every clinical encounter with Sallis et al. postulating that it be recognised as the “fifth vital sign” in medical consultations (7).

Physical activity levels in Ireland are low with just 32% of people in Ireland meeting the recommended 150 minutes per week of moderate-vigorous intensity exercise as advised by the National Physical Activity Plan for Ireland (8,9). The overall aim of the National Physical Activity Plan for Ireland is to increase the level of physical activity across the Irish population and lists among its main principles the importance of adopting evidence-based strategies to increase physical activity across the general population, whilst also targeting specific population sub-groups (10). While the National Physical Plan for Ireland commits to the development and implementation of a pilot ERS, a review of the literature in the first instance is prudent to ensure judicious use of Ireland’s finite health resources (10).

Clinical Effectiveness of Exercise Referral Schemes

Do ERS increase physical activity in participants?

There is significant heterogeneity in the literature regarding ERS (3,9). ERS were introduced in England in the 1990s, and the number of schemes expanded rapidly over the proceeding 11 years (9). Subsequently, the National Institute of Clinical Excellence (NICE) published a review of the evidence which concluded that there was insufficient evidence to support the use of ERS. Of note however, was a further remark that there was also insufficient evidence to support the disinvestment in established schemes and this implies that there are significant gaps in the evidence base (2).

The most consistent outcome measure in studies was the proportion of people achieving 90-150 minutes of at least moderate-intensity exercise at 6-12 months’ follow-up (3). A meta analysis of randomised controlled trials undertaken by Orrow et al. in 2012 reported small, non-significant effects of ERS on self-reported physical activity at 12 months (11). Orrow et al. found that the likelihood of a meaningful effect was maximal when the ERS was compared to no intervention and the effect weakest when compared with advice given face-to-face (11). Pavey et al. reported a
relative risk of 1.16 (95% C.I. 1.03-1.30) of achieving the recommended levels of physical activity at follow-up 6-12 months later with ERS when compared to usual care, but no significant difference between ERS and alternative physical activity interventions(12). Campbell et al. published a report to serve as an updated version of the paper published by Pavey et al. in 2011 and included one further RCT and one qualitative study pooled with the data used by Pavey et al.(1,3). Campbell et al. subsequently revised the relative risk produced by Pavey et al. downward to 1.12 (95% C.I. 1.04-1.20) of achieving the recommended levels of physical activity at follow-up 6-12 months later with ERS when compared to usual care(3). Poor rates of ERS uptake and adherence and the absence of interventions to prevent relapse are believed to explain, at least in part, this marginal figure(13). Pooled analyses demonstrated that those in the ERS group were more likely to attain the recommended levels of PA versus the usual care group (RR 1.08, 95% CI 1.00-1.17)(3). Furthermore, people who had a history of being more physically active at baseline and those with cardiovascular disease risk factors appeared significantly more likely to increase their levels of physical activity when referred to ERS(3).

Pavey et al. found that there was no consistent evidence to support a difference between ERS and usual care in(1):

- the duration of moderate/vigorous-intensity and total PA;
- physical fitness;
- blood pressure;
- serum lipids;
- glycaemic control;
- obesity indices (body weight, body mass index and per cent fat);
- respiratory function;
- psychological well-being (perception of self-worth, symptoms of depression or anxiety) or HRQoL.

A randomised controlled trial to examine the clinical effectiveness of the Welsh NERS was undertaken by Murphy et al. in 2012(13). It randomised participants who had either coronary heart disease (CHD), mild to moderate depression, anxiety or stress, or both of these conditions to receive an exercise referral or usual care. Participants were followed up at 12 months using the Seven-Day Physical Activity Recall or the General Practice Physical Activity Questionnaire and the Hospital Anxiety and depression Scale to assess their physical activity levels and their levels of depression and anxiety(13). Those participants who had CHD and who were randomised to the NERS had a higher odds of maintaining increased levels of physical activity at 12 months compared with those receiving usual care (OR 1.29, 95% C.I. 1.04-1.60)(13). Participants who had mental health difficulties, with or without coronary heart disease, were found to have significantly lower levels of anxiety (OR -1.56, 95% C.I. -2.75- -0.38) and depression (OR -1.39, 95% C.I. -2.60- -0.18) but those referred for mental health disorders alone did not experience a significant change in their physical activity levels(13). Importantly, the results from this study were found to be highly dependent on adherence to the ERS(13).

There are few studies that follow-up participants of ERS in the medium- and long-term(2). A study examining the effectiveness of the ‘Green Prescription’ in New Zealand at two – three years post-referral found that participants who completed the course were more likely to achieve the recommended 150 minutes of exercise per week (Odds ratio 1.1, 95% C.I. 1.0-1.3) and were less likely to be sedentary (Odds ratio 0.7, 95% C.I. 0.5-0.9) than those individuals who did not complete the course as prescribed(14). However, this study used patient self-reporting methods through
telephone interviews to follow-up participants and so the potential to introduce social desirability bias must be considered when examining the results. Furthermore, the ‘Green Prescription’ differs from ERS interventions in the UK in that the healthcare professional performs a brief intervention with any patient not meeting the physical activity guidelines, faxes a prescription for exercise to an exercise specialist who then provides motivational counselling by phone to the patient over a three-month period(15,16). This model does not fulfil the criteria for an ERS as defined by NICE (2).

The variable design of ERS between, and within, countries presents significant difficulties in developing valid conclusions from such a heterogeneous evidence-base(3,17). This challenge is demonstrated in the UK where ERS were long-established in many parts of England before the introduction of NICE standards for ERS(17). Many of the English schemes differ in their targeting of eligible patient sub-populations, their indications for referral, the physical activities they provide and also in how the schemes are evaluated - all of which impacts on their comparability(17). Further complicating matters, the terms “physical activity referral scheme”, “physical activity on prescription”, “green prescription” and “exercise referral schemes” are used interchangeably but there are often differences between these schemes(13,17). Furthermore, a recent systematic review and meta-analysis of the literature on ERS demonstrates that the wide variation seen in target groups among countries can introduce bias into the estimation of effectiveness(17).

Uptake and Adherence

There was marked variation in the uptake rates of ERS between studies with between 35-100% attending their first visit(1). There was also marked variation in adherence rates to ERS between studies with between 12-82% of those who took up the ERS managing to complete the course(1). Uptake rates were higher in RCTs when compared with observational studies (79% vs. 62%) and there was no appreciable difference in adherence rates between RCTs and observational studies(1).

The heterogeneity in uptake and adherence levels across the evidence base can partially be explained by the varying referral methods between studies and the number of exercise sessions offered to patients(18). It follows logic that the number of sessions offered to a patient will affect reported adherence rates, with those ERS offering a smaller number of sessions more likely to report a higher adherence rate(18). Again, the limitations of the evidence base come to the fore here, as without a standardised definition, participants from different ERS are non-comparable if the definition of a non-adherer varies between studies.

A systematic review found that the mode of referral affected uptake rates with those referred by letter having a lower uptake rate than those who had a face-to-face consultation with a healthcare professional(3). A qualitative thematic analysis conducted by Campbell et al. noted that a lack of private transport, a lack of a specific appointment time, socio-economic deprivation, offering only a limited range of physical activities for patients to choose from and the healthcare professionals’ knowledge and attitudes regarding ERS all impacted negatively on uptake and adherence rates of ERS(3). A systematic review by Pavey et al. reviewed the analyses of 13 studies that examined potential predictors of the level of uptake and adherence to an ERS and found that most studies looked at few influences other than age and gender with women more likely to begin an ERS, but less likely to adhere to a scheme than men(18). This study also found that older people were more likely to take up an ERS and to complete it(18).

Arsenijevic et al. found that a longer period of follow-up improved adherence with physical activity after the exercise sessions had ceased as patients viewed it as a continuation of the programme(17). In addition, qualitative research infers that introducing interventions that support the formation of
social support networks might improve adherence to an ERS and overall physical activity levels in the long-term (3).

Cost Effectiveness of Exercise Referral Schemes

The health technology assessment undertaken by Campbell et al. served to update that undertaken by Pavey et al. in 2011 and it differed only in three parameters: the estimate of the clinical effectiveness of ERS was revised downward based on the inclusion of more recent evidence that was included in the systematic review; costs were inflated to 2013 levels; the starting age for ERS was revised upward to 50 years as this was the mean age from the studies included in the systematic review (1,3).

Campbell et al. found that ERS gained 0.003 quality-adjusted life-years (QALYs) at an additional cost of £225 per person with the incremental cost effectiveness ration (ICER) for ERS, when compared with usual care, estimated at approximately £76,000 per QALY (3). This is well above the NICE threshold of £20,000 per QALY which is an important factor when considering whether or not to fund an intervention (19). However, a variety of factors may influence the effectiveness of ERS including: the intensity, length and frequency of the ERS, and the experience, skills and knowledge of those delivering the ERS, but there was limited availability of data on the impact of these factors (2).

It is important to note that this estimated cost per QALY is subject to considerable uncertainty due to the limited evidence base (3). In the univariate sensitivity analysis the results were very sensitive to increases in the effect of ERS on physical activity uptake, the protective effect of physical activity and the process utility gains (short-term improvements in health-related quality of life) associated with increased physical activity with small changes in these parameters leading to ICERs close to £30,000 per QALY gained (3). Conversely, sensitivity analyses that applied more conservative assumptions on efficacy, duration of protective effect and process utility gain resulted in ICERs over £100,000 per QALY (3). A best case scenario reported by Campbell et al. provides an ICER of £31,009 per QALY gained (3).

The economic model cited above only examines the impact of physical activity on selected morbidities which means that the cost-effectiveness of ERS may be an under-estimate (3). The economic model does not take into account the possibility of a person being referred to an ERS having more than one co-morbidity and the impact of this on the cost-effectiveness of ERS is difficult to estimate (3). Due to limitations in the evidence base to inform the assumptions in the economic model, NICE believe they can’t recommend disinvestment in ERS (2). The economic model used for ERS is comparable to that used to assess the cost effectiveness of brief advice to increase physical activity and this comparator was used in the included economic analyses and so the conclusion that ERS cost significantly more per QALY than brief advice is likely to be accurate (2).

A nested economic evaluation of the Welsh NERS was undertaken by Murphy et al. in 2012, which was included in the more recent systematic review by Campbell et al. in 2015, and it examined the cost-effectiveness of ERS for patients who were both sedentary and who had either coronary heart disease or a mental health disorder (3,20). The base case ICER was £12,111 per QALY, ERS gained 0.027 QALYs at the additional cost per patient of £327 when compared to usual care and the authors concluded that the probability of the intervention being cost-effective at the NICE threshold of £30,000 was 89% (13). Of note, while the Welsh NERS is open to those patients who are sedentary and who have at least one chronic disease, the RCT and cost-effectiveness analysis only examined those referred for coronary heart disease and mild to moderate anxiety or depression which raises questions about the external validity of the conclusions for the general population (13).
**Limitations of the Evidence Base**

There is a lack of consistency between the ERS, and therefore the studies, included in the systematic reviews and meta-analyses which casts doubt on the conclusions regarding the clinical effectiveness and cost-effectiveness of ERS\(^{(13,17)}\). For instance, the target populations, indications for referral, the activities on offer to participants and the method of programme evaluation can all vary from one study to the next\(^{(21)}\). Some ERS provide motivational interviewing alongside referral and some countries charge a fee for ERS whilst other countries provide the referral free of charge\(^{(17,22)}\). The literature has demonstrated that the clinical- and cost-effectiveness of ERS are highly dependent on adherence rates and it therefore follows logic that the presence or absence of a fee for service or additional psychological supports will impact on adherence rates and subsequently on overall outcomes\(^{(13,17)}\). NICE concluded that the clinical- and cost-effectiveness of particular schemes, or the effect of ERS on particular subgroups in the population, cannot be commented on due to a lack of evidence\(^{(2)}\).

Bias is also an issue as many of the studies rely on self-reporting of physical activity levels by patients as opposed to objective measures, which introduces the possibility of self-report bias\(^{(3)}\). The blinding of researchers taking pre- and post- measurements was shown not to be consistent either thereby providing further opportunity for the introduction of bias\(^{(1,3,12)}\).

The most consistent outcome measure across all the included studies was the proportion of participants achieving between 90-150 mins of at least moderate intensity exercise per week\(^{(3)}\). Additional benefits of ERS such as increasing social capital are not factored into many of the studies due to limited availability of evidence\(^{(2)}\). It is worth noting that those participants who did not reach the above target of 90-150 minutes of moderate intensity PA may experience health benefits but that such benefits are not consistently captured in the literature\(^{(2)}\). There is scant evidence on the medium- and long-term health benefits associated with ERS and NICE advise long-term follow-up of participants in ERS be collected and reported on to address this gap in the evidence\(^{(2)}\).

**Recommendations for future exercise referral schemes**

Bearing in mind the limitations of the evidence base, the following recommendation should be considered for incorporation into ERS:

**Data Collection Component**

- Data collection should be an important component of any further ERS that is established\(^{(2)}\).
- Further research to understand factors that impact on uptake of, and adherence to, ERS is required, along with follow-up to identify why people drop out of ERS\(^{(2,3)}\).
- Research focusing on the effectiveness of ERS within population subgroups is also required (e.g. age, sex, socioeconomic status, chronic diseases or risk factors for chronic diseases)\(^{(2)}\).
- Longitudinal studies that look at the relationship between long-term physical activity and impact on objective health outcomes should be undertaken\(^{(12,17)}\).
- NICE advise that changes in physical activity levels should be the primary outcome measured, with long-term follow-up at one year and beyond and even those that are not meeting the weekly recommended targets for PA, but who have increased their physical activity levels, should be captured\(^{(2)}\).
- NICE have also called for further high quality randomised controlled trials that compare the effectiveness and cost of ERS with other interventions that can be delivered in primary care, such as brief advice, with a particular focus on patient subgroups that already have a chronic
condition(2). Other aspects identified for study using RCTs include the setting of ERS, the incorporation of theory-based approaches to behavioural change into ERS and scheme characteristics such as content offered by ERS, method of referral etc.(2).

ERS Characteristics

- Interventions that focus on supporting participants during the course with the provision of high quality motivational counselling is deemed an important factor in uptake and adherence(3).
- Offering a wider range of activities as well as facilitating a degree of personal choice in the activity chosen appears to improve adherence rates(2,3,18).
- An environment that is supportive of a shift in behaviour to a more active lifestyle can encourage adherence to an ERS(3). For instance, the availability of parks or green spaces in urban areas was listed as a supportive factor for adherence to ERS(24).
- A more gradual programme of exercise with an introduction to a moderate level of physical activity as opposed to exposure to activities requiring intense levels of exercise may also encourage ERS adherence and sustained behaviour change(25).
- A longer period of follow-up appears to be associated with greater effectiveness(17).

Referral Practices

- Poor referral practices have an impact on the overall effectiveness of ERS e.g. assigning an individual to a type of exercise they don’t like or that they are unable to complete may lead to reduced uptake and adherence rates. NICE advise the use of triage or the “stepped approach” that includes brief advice on physical activity may help to address this issue but there remains no evidence to support this assumption(2). Similarly, the identification of all those who might benefit from an ERS is central to its success(3).
- ERS shouldn’t be targeted at those who are sedentary or inactive but otherwise healthy i.e. Healthcare professionals should only consider referral of individuals who are sedentary or inactive and who also have a health condition or risk factors for another non-communicable disease with the ERS to which individuals are referred incorporating: behavioural change techniques; the identification of support structures that participants of ERS can link in to; a process for provision of feedback on a participant’s progress; interventions for relapse prevention (2,18).
- Maximising buy-in from healthcare professionals and providing them with adequate training in physical activity counselling and referral are important measures to optimise referral rates (3).
- Mode of referral to ERS also appears to influence uptake rates with a referral letter stimulating lower uptake rates when compared with a face-to-face consultation with a healthcare professional(18).
- The speed of the referral is also important as delays in the referral process have been shown to reduce uptake rates(23).
- Increasing age and CVD risk factors appear to be strong predictors of increased uptake and adherence in ERS – by targeting interventions at older sedentary patients with increased
CVD risk factors we may demonstrate improved outcomes for ERS(13). There is insufficient evidence to support targeting other subgroups of the population at present(2).

Conclusion

There is a high proportion of the Irish population who do not meet the agreed standard of 150 minutes of moderate to vigorous intensity exercise per week(8). This is against a backdrop of an abundance of national and international policy documents which advocate for the inclusion of physical activity interventions throughout the life course, with a particular emphasis on incorporating such interventions into all healthcare encounters(10,26–38). Brief advice and brief interventions have been shown to be both clinically-effective and cost-effective in increasing levels of physical activity in the general population(2,39–41). ERS have been shown to significantly increase the number of people achieving 150 minutes of moderate- to vigorous- intensity physical activity at 6-12 months follow-up(3). However, ERS are significantly less cost-effective than giving brief advice in primary care and NICE do not recommend ERS as a cost-effective intervention for improving health through increasing physical activity whilst simultaneously acknowledging that the evidence base for ERS is equivocal(2,3). Therefore any further ERS established must incorporate a strong data collection component so that further contributions to the limited evidence base may be made(2,17). There appears limited evidence to support significant investment into ERS in Ireland at this time. The HSE should encourage and support further research in this area.
Need - Identify the needs of those who will be interacting with the innovation through consultation and research

In addition to the NERF Expert symposium and a public consultation which helped develop the Framework we also carried out targeted focus groups which reiterate many of the findings referenced in NERF.

Service users with a chronic illness and service user organisations representing people with a chronic illness were invited to participate in a focus group. Service users were asked about their views on exercise referral and to identify enablers/barriers to their use of exercise referral.

The most important factors cited that would influence uptake and referral to an exercise programme for the service users included; awareness of the ERS, Referrer engagement, referral procedure, the setting, variety of activity, leisure centre standards and Exercise Professional qualifications. Those factors that would influence people to attend and complete the programme, included; Peer support and group interaction, individualised, personalised service, monitoring and follow-up, enjoyment of exercise, cost of exercise facilities, scheduling of activities, use of technology. Service users reported that education on the benefits of exercise, Professional support after programme and a subsidised rate for participants after the programme might support people to participate in physical activity following attendance at an exercise referral programme.

A focus group was also carried out with members of the Irish Practice Nurses Association (IPNA); the purpose of which was to learn how practice nurses view exercise referral and to learn the factors that might be important in the development of a pilot programme for the NERF from referral, implementation to continuation. Practice Nurses felt that the patient needs to be told what’s expected of them by the Exercise Professional (EP) when they commence the programme. Also needs to be a focus on the education of patient, for example, rehydration, healthy eating etc. Participants emphasised that the programme needs to be tailored to the individual and that feedback to and from patients was very important. It was identified, that the programme itself needs a number of important factors i.e. flexible times, realistic targets, patient education and follow-up inbuilt into it and it also needs to be accessible to all. E-referrals should be introduced for this new programme. It was felt that patients should incur a cost to attend the programme but it should only be a small minimal fee and that the programme needs to be adaptable to fit rural facilities.

A number of the views expressed in the focus groups above are also reflected in some of the research conducted in this area. Morgan et al. (2016) examined evidence from 33 UK-relevant studies on ERS and identified that support from providers, other attendees and family was an important facilitator of adherence and ‘making exercise a habit’ post programme, as was the variety and personalised nature of sessions offered. Barriers to attendance included the inconvenient timing of sessions, their cost and location. An intimidating gym atmosphere, a dislike of the music and TV and a lack of confidence in operating gym equipment were frequently reported. It appears from these identified barriers that gym/centre based provision alone as a physical activity option isn’t sufficient.

The above findings are relevant to all who commission and provide such programmes and if taken into account could maximise the chance of ERS success.
Fit - Assess the innovation fit with HSE priorities, structures and current community initiatives

Priority

One of the strategic priorities of the Healthy Ireland Implementation Plan is to reduce the burden of chronic disease. The treatment of chronic diseases puts an unsustainable pressure on the current health services with 80% of GP consultations and 60% of hospital bed days related to chronic diseases. An ERS could contribute to this priority area by addressing one of the key modifiable risk factors i.e. physical activity.

Structures

In order to provide a successful ERS certain HSE organisational structures need to be in place to support it;

1. Staff training in Making Every Contact Count and in ER operating procedures;
2. Integration with the self-management support pathway;
3. National Behavioural Support Management System and staff training in same in relation to ERS;
4. Identify and analyse structured exercise programmes within HSE;
5. Develop home based programmes & resources;
6. Incorporate from the beginning an evaluation process for the ERS;
7. Establishment of an Exercise Referral Unit (ERU).

NERF identified most of these structures however we explored them further in relation to the HSE and what is currently in place within the organisation.

1. The Making Every Contact Count Health Behaviour Change training is a critical component of implementing a potential ERS. This training aims to capitalise on the opportunities that occur every day for every health professional to support patients to make healthy lifestyle choices to support chronic disease prevention and self-management of existing chronic diseases. It would be advisable that this programme is in place before proceeding with a pilot ER scheme. This new innovative training programme is due to go live in October 2017. However it will take some in order to build up a cohort of staff who will have received/availed of the training. An add-on component to this main training re ER needs to be devised and developed for staff. This module would need to give an overview of ER and outline its operating procedures; so that staff feel fully equipped to engage with the scheme and refer patients accordingly.

2. The HSE Service Plan 2017 gives commitment to finalising a framework and implementation plan for self-management support for COPD, Asthma, Diabetes and cardiovascular disease. To support this framework and implementation plan the ERS could aim to target adults with these chronic diseases and those with a BMI >30. Referral to the ERS is more likely to be increased if integrated into the SMS pathway and more likely to achieve its objective of uptake to ERS. It is anticipated that the proposed work of the SMS co-ordinators (due to be appointed in Q3 2017) in developing local directories and a PA Hub will provide a strengthening support for when patients exit the ERS and overall to achieve the objective of long-term independent exercise. It is considered that an ERS would be more sustainable and effective if integrated with SMS.
3. An electronic referral system is required to allow for quick and easy two-way communication and electronic transfer of information between the referrer and service provider. The system also needs to allow for efficient monitoring, evaluation and feedback. The electronic referral system needs to be compatible with internal HSE systems, various GP IT systems and accessible to external service providers. The HSE H&WB Division have purchased an electronic National Behavioural Support Management System. The HE&AL programme has requested flexibility in the development of this system so that it can be potentially used for ER. This is seen as a very important element that needs to be live and available to support an ERS pilot. It is planned to pilot this National Behavioural Support Management System in early 2018 for the Tobacco Free Ireland Programme.

In addition, specific training for staff will be required in the use of the ERS section of this System. This training will more than likely take the form of an on-line training but may also require designated contact staff to link with if difficulties arise.

4. A mapping exercise was performed in order to identify current structured exercise programmes within the HSE. There were 114 valid responses received detailing 114 programmes targeting a wide variety of conditions, with the majority of programmes just targeting one condition. The majority of valid responses received were from Physiotherapists (100). Some programmes are taking place in a number of counties while others were listed as being specific to just one county. Only one programme was recorded as taking place in all counties. The majority, 64% (92 responses) of the physical activity sessions are taking place in HSE venues. This shows that HSE primary care services via Physiotherapy are already providing structured exercise referral programmes and we need to ensure these programmes are integrated, invested in and supported as part of any future pilot ERS.

5. Evidence shows that by offering a wider range of activities as well as facilitating a degree of personal choice in the activity chosen appears to improve adherence rates. In addition to a structured exercise programme, an ERS would need to develop self-directed home based programmes and resources. NERF recommends that these programmes would be ideally evidence-based/informed and developed using diverse and emerging methods in mHealth and technology for remote tuition, monitoring and feedback. Examples include Steps to a "Better Belfast" and "Smart Move". In recent communications with Dr. Catherine Woods, University of Limerick (UL); she highlighted that work is commencing on piloting home-based programmes.

6. Detailed standardised information needs to be gathered to allow for effective evaluation of the ERS e.g. quantity of referrals, waiting times for patients, fidelity of programme delivery, and effectiveness of the programme for clients etc. In addition, patient outcomes data needs to be gathered e.g. baseline measurements, quality of life, functional capacity, final measurements etc. An evaluation process needs to be developed simultaneously with the design of the ERS operating model. Appropriate personnel need to be identified and assigned to ensure a robust evaluation process is put in place.

7. An additional structure identified by NERF is an Exercise Referral Unit (ERU) which is described as a national structure under the direction of and resourced by the HSE. According to NERF the ERU should be headed by a part-time national clinical lead with expertise in sports and exercise medicine. The ERU will also include a full-time National Programme Manager and a recommended 2-3 full-time support staff, depending on available resources and service demand. An ERU or a similar resourced structure with the necessary expertise is essential for the implementation, management and evaluation of any future ERS. The cost of staffing per year would be approximately €270,000.
Considering the above necessary structures/resources that are due to be put in place but to date are not in operation it would seem that the HSE is not organisationally ready to implement an effective ERS at present.

**Current Community Initiatives**

An ERS will involve integration between the HSE and community facilities/programmes. Therefore procedures need to be in place to establish and facilitate this relationship. The HSE is currently making considerable investment in the development, funding and evaluation of community programmes e.g. Croí MyAction, Croí CLANN, Croí Community Based Cardiac Rehabilitation (CBCR) Programme, Men on the Move and DCU MedEx programme. The latter is independently being taken up by different Higher Education Institutes across the country. Other structured exercise programmes available in the community are Project Weightloss, Green Prescription, Siel Bleu Programmes, Bike for Life, and Balance Matters.

The programmes above meet some of the criteria for a proposed ER scheme but each would need to be modified/adapted to meet the full requirements. E.g. length of programme, inclusion of workshops on healthy eating and stress management, minimal data set, cost, targeting lower socioeconomic groups, peer/family support, 12 month follow-up etc. (please see programme comparison table Appendix II).

Another key piece of work is the training of Exercise Professionals (EPs) to deliver a structured exercise programme for referred patients. EPs need to have appropriate competencies and training in order to do this. Current EPs qualifications need to be assessed in order to ascertain if they meet the required standards when dealing with the ERS target audience. Presently there is a lack of an agreed standardised qualification for EPs for ER in Ireland. New training needs to be developed and delivered and the responsible body for this needs to be identified and consulted with. NERF recommends that the REPs Ireland be engaged by the ERU to develop or adapt existing international clinical exercise / exercise referral standards for the NERF target group. Training was one of the main concerns expressed at the practice nurses focus group namely; the need for health professionals to be confident when referring a patient onto the programme. Health professionals need to know that the EP is qualified. It was agreed that a minimum exercise qualification for EPs is set.

**Learnings From Other Countries in Relation to Resourcing**

NERF outlines three business models, namely; Health of the Nation model, Commercial model and the Hybrid model. NERF proposes that the Hybrid Model approach should be adopted for the NERF roll out. This cost model option provided in NERF is focused on providing a business case for Higher Education Institutions (HEIs) to deliver the programme. However, it makes a number of assumptions i.e. overheads such as utilities will be provided for free and that HEIs already have an AED in place. Also to proceed with this cost model the HSE would carry a lot of the cost burden.

Therefore we undertook to examine the resource requirements of both the Welsh and Northern Ireland schemes. Each country is at different stages of delivering an ERS; the Welsh programme has been running for the past 10 years and Northern Ireland is nearly finished its planning stage.

In 2005, existing good practice in local schemes across Wales (population of 3 million and 8,000 sq. miles in size) was assessed and standardised Wales-wide protocols were developed. From July 2007 to January 2009 the national programme was implemented on a 3 phase basis with an evaluation carried out in 2010. The Welsh NERS receives funding of 3.4 million pounds per year to run their national programme and they are supported by the Local Authorities. They employ 21 Local Co-
ordinators & one National Manager employed by the Welsh Local Government Association. They have approximately 30,000 referrals to ER per year with approximately 61% of those taking up the opportunity to complete the programme. Key lessons learned from implementing the scheme in Wales included; a) identifying that GP ‘buy in’ is very important, b) training of Exercise Professionals is a big overlay and c) the programme structure needs very careful consideration e.g. a 16 week programme versus a 12 week programme preferred to increase the likelihood of adherence.

In Northern Ireland (population of 1.811 million and 5463 sq. miles in size), the Regional Obesity Action Plan (2012/13) identified the need to review the current Physical Activity Referral Schemes (PARSs) provided. The Review identified the need to develop a more standardised approach to the commissioning and provision of these programmes. Since 2015/16 following this review document work has focused on the development of a standardised delivery model. This model is still being finalised and the full roll of the model is currently being costed to try and ensure equity of provision across the province. Coinciding with this an IT system (Capital cost of £120,828 Revenue cost £224,738) has been designed and will be further developed for testing in 2017. It is envisaged that by April 2018, an effective referral management process (IT system) will have been established and roll-out of the standardised programme will have commenced. Whilst it is anticipated that most areas will roll out the programme by September 2018, funding has yet to identified to ensure that this happens. The IT system will be available to all providers by September 2018 and reporting on real monitoring & evaluation data commenced. The programme will then be live for 3 years and evaluated by April 2021.

From the two examples above it clearly demonstrates the level of required resources needed to deliver a national ERS. If the HSE were to implement the recommendations from NERF and include further necessary specifications (e.g. tailored structured exercise programme, lower socioeconomic target group, low cost for patients) there would be considerable resources required.
**Conclusion**

An ERS could contribute to the strategic priority of the Healthy Ireland Implementation Plan to reduce the burden of chronic disease by addressing one of the key modifiable risk factors i.e. physical activity. Get Ireland Active: National Physical Activity Plan for Ireland specifies for the HSE to lead on: **Action 25 Develop and implement a pilot programme for the National Exercise Referral Framework (NERF)**. A pre-development group was formed in October 2016, to review the evidence, and to coordinate pre-development work to inform a strategic approach to implementing this Action.

From examining the evidence on the clinical effectiveness and cost effectiveness of exercise referral schemes there appears limited evidence to support significant investment into ERS in Ireland at this time. The HSE should encourage and support further research in this area.

On exploring NERF further, it appears that NERF will not provide full guidance in order to implement a cost effective ERS for the HSE. The cost model presented in NERF, outlines that most of the cost is borne by the HSE.

In order to provide a successful ERS, there are many factors that need to be considered; requirements of both patients and Health Professionals, availability of community programmes that meet the ERS requirements and certain HSE organisational structures which are not currently in place e.g. Making Every Contact Count, National Behavioural Support Management System. The HSE needs to ensure that these components are in place in order to pilot an exercise referral programme.

If the HSE were to implement the recommendations from NERF and include further necessary specifications (e.g. tailored structured exercise programme, lower socioeconomic target group, low cost for patients) considerable resources will be required.
Future Recommendations

1. NICE evidence suggests that ERS have only a marginal added effect relative to other ways of increasing physical activity e.g. brief advice and providing information about local facilities and opportunities to be physically active. Therefore it is recommended that the HSE as a priority continue to focus on;

   a) Supporting the implementation of Making Every Contact Count Health Behavioural Change Framework by developing A Making Every Contact Count training programme to provide Brief Intervention training and skills development in relation to physical activity, healthy eating, tobacco and alcohol. Commence roll out of this from early 2018.

   b) The collaborative work commenced in 2016 with all Higher Education Institutions in Ireland to develop a standard Undergraduate curriculum for Making Every Contact Count health behaviour change and chronic disease prevention and management. This curriculum will start to be implemented in all undergraduate programmes for all healthcare professionals from September 2017.

   c) The implementation of the Self-Management Support Framework (SMS) by recruiting 9 SMS Co-ordinators to implement the framework through;

      - Mapping current SMS provision;
      - Creating a SMS directory of services;
      - Standardising and increasing provision of cardiac rehabilitation;
      - Standardising and increasing provision of pulmonary rehabilitation.

   d) Expanding the reach of the facilities and amenities directory on www.getirelandactive.ie

   e) Working through Local Sports Partnerships to increase opportunities to participate in health enhancing physical activity in the community.

2. Currently, it is not the right time to proceed with implementing a pilot project for an Exercise Referral Scheme in Ireland. As outlined, integral resources needed for exercise referral within the HSE are not in place and this decision is also strengthened by the poor evidence base on exercise referral presented in this briefing document. The HSE H&WB Division have commissioned the development of an electronic National Behavioural Support Management System. It is planned to pilot this National Behavioural Support Management System in early 2018 for the Tobacco Free Ireland Programme. The Healthy Eating & Active Living programme will sit on the Project Board for the development of the electronic National Behavioural Support Management System.

3. Extend the membership of the HSE NERF Pre-Development Group to a wider range of HSE stakeholders e.g. Self-Management Support, Physiotherapy, Health Promotion and Improvement (Physical Activity). The role of the group would be to:

   a) Connect in with/keep abreast of ongoing research projects and HSE funded programme evaluations in this country relating to exercise referral such as Croí Community Based Cardiac Rehabilitation (CBCR) Programme, Men-on-the-Move; DCU Med-ex evaluation.
b) Monitor service developments that increase organisational readiness to implement exercise referral both within HSE and with potential service providers such as Croí, Third Level institutions; Local Sports Partnerships; Ireland Active; REPs Ireland.

c) Monitor developments in exercise referral evidence based research worldwide and in particular await the outcomes of the Northern Ireland Physical Activity Referral Scheme evaluation.

4. Invest in a research collaboration through Healthy and Positive Ageing Initiative (HaPAI) to develop a community intervention to increase physical activity in those aged 50+.

5. If the decision is taken to implement Action 25 in the future; then any future ERS needs to build on the evidence-base. The HSE would need to carry out a needs assessment and prioritization exercise to inform a strategic approach to collaborating or commissioning research and developing knowledge requirements to inform the establishment of an operating model for ERS for the HSE. Specifically, consideration would need to be given to the design, development, implementation and evaluation of an ERS that is scalable and cost-effective. This will require collaboration with Higher Education Institutes and research bodies such as the Health Research Board. In order to inform aspects of this work a wider stakeholder (both HSE and external) group would need to be convened.
References


34. Jennings S. Preventing Chronic Disease: Defining the Problem. Dublin:HSE;2014.


Appendix I – NERF Pre-development Group

- Sarah O’Brien, National Lead, Healthy Eating & Active Living Programme
- Agatha Lawless, Project Manager, Healthy Eating & Active Living Programme
- Caroline Kelleher, Health Promotion Officer, Community Healthcare Organisation
- Dr Peter Wright, Director of Public Health, HSE North West
- Dr. Sarah O’Brien, SpR Public Health Medicine, Sligo
Appendix II – Structured exercise programmes available in the community

A brief summary/background of each programme/organisation is given below and a more detailed programme account is given in the subsequent tables.

1. Croí - Galway:

Croí is a not-for-profit foundation established in 1985 dedicated to fighting Cardiovascular Disease and Stroke by designing and delivering innovative and life changing programmes which reduce the risk of heart attack, stroke and diabetes in the Galway region.

2. Men on the Move (MoM) - Donegal, Mayo, Galway, Waterford, Dublin, Limerick, Kilkenny & Cork and piloted in 3 GAA clubs; Ballinderreen GAA, Galway; Aghamore GAA, Mayo & Mungret St Pauls, Limerick

The MoM concept was conceived by the Mayo Local Sports Partnership and delivered in a number of locations throughout the county. The Donegal Local Sports Partnership also ran a number of successful MoM programmes, which differed somewhat to the Mayo model. The learnings from these experiences, coupled with the lessons learned from similar programmes elsewhere informed the model for the national MoM programme. The national MoM project was initiated in February 2014 by a number of the partners;


3. MedEx Wellness - DCU with aspects of the programme being delivered in IT Sligo & WIT:

Established in 2006, MedEx Wellness is a series of supervised programmes under the care of Medical Director Dr. Noel McCaffrey in DCU. MedEx Wellness is a novel community-based chronic illness rehabilitation programme located at Dublin City University. It offers medically supervised exercise classes and educational workshops on nutrition to patients with a range of chronic illnesses. MedEx also encourages peer support through social activities after class.

A National MedEx Network has been established which includes; IT Sligo, Waterford IT, UL, Cork IT, Athlone IT, Letterkenny IT, UCD, UCC, National Aquatic Centre, IT Tallaght, IT Carlow.

4. Green Prescription - Donegal:

The Green Prescription programme was developed by the HSE in partnership with local doctors and local communities, Get Ireland Active, the Irish Heart Foundation, Donegal Road Safety Working Group and Donegal Sports Partnership. The Green Prescription programme is based on the idea that physical activity in nature results in positive outcomes for both physical and mental health. The programme aims to prevent and tackle overweight and obesity, while also promoting health and quality of life.
5. Project Weightloss (PWL) - Cork:

The primary aim of PWL is to provide an opportunity for inactive and sedentary people to experience exercise, appropriate to their ability and needs. Project Weightloss ran as a pilot initially back in September 2011 in LeisureWorld Bishopstown, Cork and was supported by Cork Sports Partnership. In 2012 with the support of the Health Promotion Department HSE South and LeisureWorld, a two day training course was devised to train up interested and qualified instructors to deliver Project Weightloss so it would be available in other communities in Cork.

6. Siel Bleu; “Exercise, COPD & Me” – Bray, Waterford, Ballyfermot and Drogheda:

Siel Bleu was founded in France in 1997 and established in Ireland in 2010. Siel Bleu Ireland aims to improve the quality of life of older adults; through fun and interactive, tailored exercise programmes. COPD Support Ireland in conjunction with Siel Bleu Ireland and Boehringer Ingelheim have designed and implemented a community based exercise programme for people with COPD. The programme was informed by Professor Tim Mc Donnell, HSE COPD Clinical Programme lead. The aim of this programme was to enhance physical, social and mental wellbeing of all participants through adapted exercises in a cost effective manner.

7. Balance Matters - Dublin:

The Balance Matters project, HSE Dublin North East, is a collaboration between HSE physiotherapists and community groups which aims to improve older peoples’ balance and mobility, build their confidence and prevent falls. Participants in the programme reported increased levels of balance, mobility and confidence. The programme is delivered in a group setting which is more efficient and effective and participants enjoyed the social aspect of the sessions.

8. Bike for Life (Cycling Ireland) - National:

The Bike for Life cycling programme caters for all cyclists, from the person who has just rediscovered their bike, to the more accomplished rider who wants to take on greater challenges. A cyclist is brought through the various skills and techniques involved in cycling over a 4 to 10 week period (length is tailored for each group). Bike for Life is sponsored by the HSE, under their Get Ireland Active initiative, as well as receiving funding from Women in Sport.
### Appendix III – Community Programme Comparison Table

The programmes listed in the tables below meet some of the criteria for a proposed ER scheme but each would need to be modified/adapted to meet the full proposed requirements.

<table>
<thead>
<tr>
<th>Description:</th>
<th>Croí MyAction</th>
<th>Croí Community Based Cardiac Rehabilitation (CBCR) Programme</th>
<th>Croí CLANN (Changing Lifestyle through Activity and Nutrition)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description:</strong></td>
<td>The Croí programme which helps individuals and their families reduce their risk of developing heart disease, stroke and diabetes.</td>
<td>CR programme, which focuses on lifestyle risk factor management psychosocial health, medical risk factor management and cardio-protective therapies. (derivative of Croí MyAction)</td>
<td>A nurse-led multi-disciplinary structured lifestyle programme.</td>
</tr>
<tr>
<td><strong>Target Group:</strong></td>
<td>Individuals &gt;40yrs and at high risk of developing CVD as well as those who have already been diagnosed or suffered a cardiovascular event.</td>
<td>Individuals with established cardiovascular disease, within the following priority groups: 1. Heart Failure / Post revascularisation / Unstable Angina / MI 2. ‘Other’, e.g. cardiomyopathy, post valve replacement, ICD, transplant 3. TIA / Stroke / PVD Hypertension with CVD Diabetes with CVD / etc. Partners / spouse can attend the education session.</td>
<td>For adults with a BMI &gt; 35kg/m² with significant co-morbidity or &gt;40kg/m². Referred from the local hospital bariatric service.</td>
</tr>
<tr>
<td><strong>Aim(s)/Objective(s):</strong></td>
<td>To improve patient outcomes for both high risk and CVD patients.</td>
<td>To provide the patient with the skills &amp; knowledge to self-manage, facilitate recovery both physically and psychologically and educate to reduce the risk of further CVD events.</td>
<td>To help individuals achieve a healthy weight through lifestyle modification including physical activity and healthy eating.</td>
</tr>
<tr>
<td><strong>Programme Length:</strong></td>
<td>16-week community based integrated Cardiovascular disease prevention programme.</td>
<td>12-weeks (including IA and EOP follow-up), 2hr weekly sessions and individual reviews.</td>
<td>8 weeks – 2hr weekly sessions.</td>
</tr>
<tr>
<td>Activity types:</td>
<td>Croí MyAction</td>
<td>Croí Community Based Cardiac Rehabilitation (CBCR) Programme</td>
<td>Croí CLANN (Changing Lifestyle through Activity and Nutrition)</td>
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<tr>
<td></td>
<td>Individuals attend a 12-16 week intensive lifestyle programme which includes healthy lifestyle change (smoking cessation, healthy food choices and increasing physical activity levels) as well as management of cholesterol &amp; BP and therapeutic management.</td>
<td>Group based, supervised and structured exercise programme, coupled with health promotion workshops such as smoking cessation, healthy eating, increasing safe levels of physical activity and stress management.</td>
<td>Group based, supervised and structured exercise, weekly weight monitoring Group information sessions on key health topics including: Healthy eating, food labels, benefits of PA, psychological issues of obesity &amp; maintaining change.</td>
</tr>
<tr>
<td>Assessment:</td>
<td>Initial assessment by multidisciplinary team (nurse specialist, dietician &amp; Physio) with a Cardiologist’s weekly reviews. Goal setting - reviewed weekly. Assessment at end of programme &amp; 1yr.</td>
<td>Initially, all patients will receive an individualised assessment by each member of the multidisciplinary team, which explores cardiac status, medication compliance, current lifestyle habits, beliefs, barriers and motivators to change.</td>
<td>Initial assessment prior to commencing 8 wk programme. Re-assessed after 8week programme</td>
</tr>
<tr>
<td>Patient cost:</td>
<td>Free</td>
<td>Free</td>
<td>Free</td>
</tr>
<tr>
<td>Referral Pathways:</td>
<td>Referral through a series of pathways which include general practice and hospital departments such as cardiology, stroke, and endocrinology.</td>
<td>Referral pathways include private clinics and some GP practices, whilst offering more convenient accessibility for some patients, e.g. those who return to work and need to attend evening sessions.</td>
<td>Through Prof F. Finnucane, Bariatric &amp; Diabetic Service in UHG. (2 year waiting list) Alternate option - Croí MEND - €600</td>
</tr>
<tr>
<td>Location(s):</td>
<td>Galway</td>
<td>Galway / Mayo</td>
<td>Galway</td>
</tr>
<tr>
<td>Delivery Costs:</td>
<td>Unit cost - €1,169 per patient. Incremental cost - €941 Funded by HSE.</td>
<td>To be determined. Funded by HSE.</td>
<td>Funded by HSE and UHG.</td>
</tr>
<tr>
<td>Evaluated:</td>
<td>Health Economic Evaluation 2015/16</td>
<td>Programme recently commenced/piloted - To be evaluated</td>
<td>Yes</td>
</tr>
<tr>
<td>Description:</td>
<td>Men on the Move (MoM)</td>
<td>MedEx Wellness DCU</td>
<td>Green Prescription</td>
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<tr>
<td>Description:</td>
<td>MoM is a wellness programme with a primary focus on Physical Activity (PA). The purpose of the programme is to use PA as a hook to engage men in their health. Evidence in Ireland and elsewhere states that PA can be a safe and acceptable way for men to engage with their health.</td>
<td>Series of supervised programmes; <strong>HeartSmart</strong> - cardiac rehabilitation <strong>BreatheSmart</strong> - pulmonary rehab. <strong>SmartSteps</strong> - vascular rehabilitation <strong>Diabetes Health Steps</strong> - people with diabetes. <strong>Move On</strong> - cancer rehabilitation <strong>Movement To Music</strong> - dance class for individuals with Parkinson’s</td>
<td>Initially based upon the New Zealand model, The Green Prescription is a community-based PA programme based on the theory that physical activity in nature also called “green exercise” results in positive outcomes for both physical and mental health.</td>
</tr>
<tr>
<td>Target Group:</td>
<td>Adult men who are inactive</td>
<td>Patients with cardiovascular disease, pulmonary disease, peripheral vascular disease, diabetes, cancer and Parkinson’s disease.</td>
<td>For adults (&gt;18yrs) with a health problem and who want to start walking for health and enjoyment, especially people who might not have exercised in a while or those with low motivation to exercise.</td>
</tr>
<tr>
<td>Aim(s)/Objective(s):</td>
<td>To improve the physical fitness, weight status and general health and lives of the men who attend.</td>
<td>Chronic illness rehabilitation</td>
<td>To improve participants motivation, mobility, strength, posture and aerobic activity. Increase fitness levels &amp; reduce problems associated with obesity; depression hypertension &amp; stress.</td>
</tr>
<tr>
<td><strong>Programme Length:</strong></td>
<td><strong>Men on the Move (MoM)</strong></td>
<td><strong>MedEx Wellness DCU</strong></td>
<td><strong>Green Prescription</strong></td>
</tr>
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</tr>
<tr>
<td><strong>Length:</strong></td>
<td>12-week community based PA programme</td>
<td>Rolling programme. (2 sessions per week for at least 3 months)</td>
<td>12-week structured programme, 2 stages: 1) A 4-week indoor programme - ‘Green Steps’ (1hr/wk) 2) An 8-week outdoor walking programme - “Green Gym” (1hr/wk)</td>
</tr>
<tr>
<td><strong>Activity types:</strong></td>
<td>Structured grp exercise for 1hr twice/wk; 2 w/shops (diet &amp; well-being); booklet with PA log; a 5Km event at 12 wks; a pedometer for independent PA sessions Core components; cardiovascular exercise, strength &amp; conditioning &amp; flexibility training.</td>
<td>Choice of a number of classes i.e. HeartSmart, BreatheSmart, SmartSteps, MoveOn, Diabetes Health Steps.</td>
<td>Gentle exercise that will prepare participants for regular walking in their local area.</td>
</tr>
<tr>
<td><strong>Assessments:</strong></td>
<td>Health checks (incl. weight &amp; waist circumference measurements), health &amp; lifestyle questionnaire and &amp; mile test at week 1, week 6 &amp; week 12 (Evaluation purposes)</td>
<td>Clients must attend an induction/assessment session, before joining.</td>
<td>Homework tasks supported by resources (info packs &amp; pedometer)</td>
</tr>
<tr>
<td><strong>Patient cost:</strong></td>
<td>Free to participants for the evaluation. Now varies; free in some areas, €3 and €150 in others!</td>
<td>€8 per class or €7 per class with Medical Card (DCU 2016 rates)</td>
<td>Free</td>
</tr>
<tr>
<td>Referral Pathways:</td>
<td>Men on the Move (MoM)</td>
<td>MedEx Wellness DCU</td>
<td>Green Prescription</td>
</tr>
<tr>
<td>------------------</td>
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</tr>
<tr>
<td>Through offering free health checks</td>
<td>A referral letter &amp; list of relevant medication is required from Consultant/GP.</td>
<td>By referral from a GP/Clinician OR Self-referral to the Green Prescription Support Worker</td>
<td>Poster advertising campaigns, social media promotion, local radio interviews &amp; broadcast e-mails by partner organisations.</td>
</tr>
<tr>
<td>Location(s):</td>
<td>HSE funded 8 evaluation counties (Donegal, Mayo, Galway, Waterford, Dublin, Limerick, Kilkenny &amp; Cork) to continue to offer the programme in 2017. To be expanded further in 2018.</td>
<td>DCU, IT Sligo, Waterford IT, UL (due)</td>
<td>Donegal</td>
</tr>
<tr>
<td>Delivery Costs:</td>
<td>Approx. €1200 - €1500 depending on venue type used (i.e. playing field, running track, indoor venue etc.)</td>
<td>Unknown</td>
<td>Cost per annum (estimated) €40,000 (Donegal SMS Initiatives Document, 2014)</td>
</tr>
<tr>
<td>Description:</td>
<td>In p/ship with COPD Support Ireland, Siel Bleu Ireland has developed a community based exercise programme.</td>
<td>Balance Matters is an innovative, cost effective, community based exercise interagency (HSE &amp; Dublin City Council) programme.</td>
<td>This is a &quot;sofa to saddle&quot; cycling programme that caters for all cyclists, from the person who has just rediscovered their bike, to the more accomplished rider who wants to take on greater challenges.</td>
</tr>
<tr>
<td>Target Group:</td>
<td>Adults living with COPD</td>
<td>Frail older adults</td>
<td>Caters for all cyclists</td>
</tr>
<tr>
<td>Aim(s)/Objective(s):</td>
<td>To improve the health and wellbeing of Irish adults living with COPD.</td>
<td>To reduce the risk of falls and injuries and social isolation among frail older people.</td>
<td>To promote the health and wellbeing of frail older people through tailored exercise and socialisation programmes. The focus of the programme is on learning and meeting new people, with the group cycle a prominent feature in the programme.</td>
</tr>
<tr>
<td>Programme Length:</td>
<td>Rolling programme, 50 weeks/year</td>
<td>Rolling programme with 2 components – the Falls Management Exercise Programme (FaME) and the Meet, Move and Socialise Programme (MMS)</td>
<td>Offered at three levels and consisting of ten to-12 weekly sessions.</td>
</tr>
<tr>
<td>Assessments:</td>
<td>Every 12 weeks (flexibility, aerobic capacity)</td>
<td>N/A</td>
<td>Questionnaire administered to establish what level participants are at (3 in total).</td>
</tr>
<tr>
<td>Activity types:</td>
<td>Strength based exercises, 3 x2min walks, seated chair exercises, circuit class.</td>
<td>Evidence based exercises (balance &amp; coordination, strength, flexibility and cardiovascular fitness) A health and psychological wellbeing component. Socialisation element.</td>
<td>Education on the various skills, aspects and components of cycling in a safe, welcoming and social environment.</td>
</tr>
<tr>
<td>Referral Pathways:</td>
<td>Through membership of COPD support group, referral from a COPD Physio, through contact with Siel Bleu office.</td>
<td>Participants are referred by the HSE physio team. Open day with free fitness testing also identifies appropriate participants.</td>
<td>Access via Cycling Ireland website and local LSPs</td>
</tr>
<tr>
<td>Patient cost:</td>
<td>€3 nominal fee</td>
<td>Varies in each location</td>
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<tr>
<td>Location(s):</td>
<td>Drogheda, Dublin (5 locations), Bray, Waterford, Cork, Limerick, Nenagh, Galway, Athlone, Mullingar, Sligo, Carlow</td>
<td>Ballymun, Dublin</td>
<td>All over the country but not being run publically. Cycling Ireland will recruit a leader if requested and/or advertise a course looking for leaders.</td>
</tr>
</tbody>
</table>
| Delivery Costs: | €50 per session  
Class numbers range from 12-20 participants. Therefore the class usually costs each participant around €4. | Received an initial €10,000 from Lotto funding for start-up (equip, t/sport, refreshments etc.) through local community group (no longer in place) | Sponsored by HSE & funding from Women in Sport |
| Evaluated: | Stage 1 Evaluation  
Stage 2 Evaluation 2015 | FaME component evaluated (Gold std – 2 Physio over 6-mths) | Unknown |